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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/666,323

09/19/2003

Thomas E. Creamer

BOC9-2003-0019 (388)

7911

7590 04/28/2008
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EXAMINER

DAILEY, THOMAS J

ART UNIT

PAPER NUMBER

2152

MAIL DATE

DELIVERY MODE

04/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/666,323	Applicant(s) CREAMER ET AL.	
	Examiner THOMAS J. DAILEY	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/13/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-6 and 8-31 are pending.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 14, 2008 has been entered.

Response to Arguments

3. Applicant's arguments, see Remarks, page 14, lines 7-17, filed January 14, 2008, with respect claims 1-6, 8-11, 13-26, and 28-31 have been fully considered and are persuasive. The 35 U.S.C. 103(a) rejections of claims 1-6, 8-11, 13-26, and 28-31 have been withdrawn.

Claim Objections

4. Applicant is advised that should claims 11 and 21 be found allowable, claims 12 and 27 will be objected to under 37 CFR 1.75 as being substantial duplicates thereof.

(a) When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in

wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

(b) The examiner notes that in the response submitted by the applicant on August 13, 2007 the applicant indicated, "Applicants nevertheless have amended independent Claims 1, 11, 16, 21, and 31 and cancelled Claims 7, 12, and 27 to further emphasize certain aspects of the invention so as to expedite prosecution of the application." (see Remarks page 11, lines 12-14). The applicant, in the submitted amendments, however, only cancelled claim 7, but amended independent claims 1, 11, and 21, with the subject matter substantially recited in claims 7, 12, and 27 (claim 12 being included with claim 11; claim 27 being included with claim 21). The examiner suggests the applicant cancel claims 12 and 27.

5. Claims 16 is objected to for reciting intended use limitations. Specifically, claim 16 recites, "an interface *for* associating..."(emphasis added, line 2) and "a ghost controller *for* managing" (emphasis added, line 6). The examiner reminds the applicant a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Simple elimination of the recitation of "for" in claim 16 would remedy this objection.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 11-31 are rejected under 35 U.S.C.101 because the claimed invention is directed to non-statutory subject matter.

8. Claims 11-15 are directed to "A system for validating data comprising..." and all the limitations are software elements (hosts, ghost agents, and a validation application). Therefore the claims are directed to functional descriptive material that is not embodied on a computer system which is non-statutory. While the claim 11 recites, "said hosts are software objects distributed within a plurality of *computing platforms*" (emphasis added, lines 3-4), computing platforms can reasonably be interpreted as software (e.g. an operating system platform) and is not explicitly defined in the specification. The examiner suggests the use of the term "hardware platform" as alternative, as this term is specifically recited in the specification (see [0027]) and can not be reasonably be interpreted as software.

9. Claims 16-20 are directed to "A ghost agent comprising..." and all the limitations are software elements of a ghost agent. Therefore the claims are directed to functional descriptive material that is not embodied on a computer system which

is non-statutory. The examiner suggests an amendment to the preamble so as to tangibly embody the ghost agent on a computer system. An amendment along the lines of "A ghost agent tangibly embodied on a hardware platform comprising..." should alleviate this 101 rejections.

10. Claim 31 is directed to "A system for validating data comprising..." and all the limitations are software elements (means for identifying, means for associating, etc.). Therefore the claims are directed to functional descriptive material that is not embodied on a computer system which is non-statutory. The system needs to include hardware so that the claim cannot be interpreted as software alone. For example, an amendment along the lines of "A system for validating data comprising: a grid environment comprising a plurality of hardware platforms..." should alleviate this 101 rejection.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined

application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

12. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

13. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1-6 and 8-31 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 13, 20, and 32 of U.S. Patent No. 7,284,156, hereafter '156. Although the conflicting claims are not identical, they are not patentably distinct from each other because all limitations of the patented case are found in the instant application's claims and the

additionally limitations found in the instant application's claims would have been an obvious variations of '156s claims.

15. Regarding claims 1, 20, and 32 of '156, they substantially recite, a method for debugging software objects within a grid environment comprising the steps of:
- identifying a host, wherein said host is a software object operating in a grid of said grid environment;
 - associating a ghost agent within said grid with said host, wherein said ghost agent is configured to replicate and record at least one action of said host within said grid;
 - debugging said host based upon said recorded actions;
 - moving said host from said grid to another grid within said grid environment;
- and,
- in response to said moving of said host, moving said ghost agent from said grid to said another grid.

16. Regarding claim 13 of '156, it recites, a computer-readable storage medium, comprising computer instructions for a debugger to debug software within a grid computing environment, said debugger comprising a debugger interface for debugging software objects for an application domain distributed within different grids of a grid environment,

wherein said software objects comprise a plurality of hosts and at least one ghost agent configured to be associated with a selected one of said hosts to replicate and record at least one action of said hosts,

wherein at least a portion of said hosts move from one grid within said grid environment to another grid, and wherein said ghost agents responsively move from said one grid to said another grid in response to movement of said associated host,

wherein said ghost agent is further configured to debug said associated host, and wherein said interface conveys debugging commands to said ghost agents and responsively receives debugging messages.

17. As to claims 1, 11, 16, 21, and 31 of the instant application they substantially recite, a validation method comprising the steps of:

identifying a host within a first grid of a grid environment currently unassociated with a ghost agent, wherein said host is a software object operating in the first grid, and wherein said grid environment comprises at least two distinct grids;

associating a ghost agent in the first grid with said host, wherein the ghost agent is a software object configured to replicate actions of an associated host software object and record data related to the replicated actions of the associated host software object;

comparing the recorded data related to said replicated actions with validation data;

generating a validation output based upon said comparing step;

moving said host from a the first grid to a second grid within said grid environment; and,

in response to moving said host to said second grid, moving said associated ghost agent from said first grid to said second grid within said grid environment so as to follow movements of said host within the grid environment and to permit the ghost agent to replicate actions of said host in said second grid and record data related to said replicated actions in said second grid.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.
19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2152

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TJD

/Bunjob Jaroenchonwanit/
Supervisory Patent Examiner, Art Unit 2152